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Superpower Crises in a Less Confrontational World: Results of an Experimental Simulation

Preston Niblack, Arnold Kanter

April 1990

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Preston Niblack, Arnold Kanter

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Prepared for the
Carnegie Corporation

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Project on
Avoiding Nuclear War:
Managing Conflict in the Nuclear Age

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PREFACE

This Note reports on the results of a series of experimental political-military crisis simulations conducted as part of a larger project on "Avoiding Nuclear War: Managing Conflict in the Nuclear Age," being conducted jointly by The RAND Corporation and the RAND/UCLA Center for Soviet Studies. The project is supported by a grant from the Carnegie Corporation of New York.

The authors wish to thank the numerous RAND researchers and their colleagues from other institutions who participated in the series of games which are reported in this Note. They also express their appreciation to colleagues Arnold Horelick and Bob Nurick for comments on an earlier version of this paper, and to Philip Romero for a cogent review of an earlier draft.

The material presented herein should be of interest to scholars and analysts interested in the fields of U.S.-Soviet relations, international relations, and crisis management, and in the uses of political-military gaming as a research tool in these areas.

SUMMARY

Gaming techniques have long been used to help acquire vicarious experience in the management of crises and the conduct of military operations. As part of our Carnegie-sponsored project on "Avoiding Nuclear War: Managing Conflict in the Nuclear Age," we conducted an experiment to investigate whether such traditional gaming techniques can be adapted to new purposes. Our objective was to explore the utility of gaming as a *research tool*, i.e., as a way to formulate and explore a variety of research hypotheses related to the management of superpower crises, rather than in its traditional role as a pedagogic or training device. To do this, we sought to design a game that could be repeated frequently and economically to generate and explore substantive research hypotheses, and actually to begin to develop some hypotheses.

In all we conducted two "systems tests" (which were primarily intended to evaluate and refine game procedures and supporting hardware), and two "pilot runs" (designated as Games Three and Four) which allowed us to evaluate and improve the game materials. We now have in place well-tested operational game procedures, including a computer-based communications and record keeping system, and good game materials (including a comprehensive game scenario built around a postulated crisis between Egypt and Libya).

Our overall conclusion is that the techniques we developed and adapted hold real promise of making it possible to employ political-military gaming as a research tool. It also appears to be feasible to design the game materials, procedures, and hardware that are required to support the distinctive requirements of superpower crisis management games. Given the central role that communications plays in superpower crisis bargaining, we believe that the computer-based communications feature we have developed for the game is a major and important innovation.

The practical utility of employing political-military games as a research tool depends on reducing the time, money, and manpower costs associated with the traditional political-military game, which often make gaming a prohibitively expensive undertaking. We were not able to substantially reduce the costs associated with game preparation and play, since the biggest cost element of both is the labor of the participants—man-hours. However, the other costs of operating the game are relatively minimal; and the costs of scenario development can be amortized across a series of games which employ the same scenario.

We also began to derive substantive hypotheses about the behavior of superpowers when they are drawn into a regional crisis by their respective clients. We found that, at least for our game participants, there was a significant reluctance to run the risk of a military confrontation with the other superpower, even if that meant placing the regional client in jeopardy, sanctioning an erosion of regional interests, and establishing damaging precedents for relations with allies and clients in other regions. However, we observed during the course of our gaming experiment that decisionmakers tended to avoid confronting the dilemmas that faced them, which would have meant consciously prioritizing values and making tradeoffs between them. Framed as a hypothesis, we observed that decisionmakers seek, consciously or not, to avoid directly confronting tradeoffs among important interests through a variety of simplifying behaviors.

Each superpower tended to define the situation it faced in terms of two components: (a) managing relations with its client, and (b) managing relations with the other superpower. Typically, however, they attended to—and, indeed, defined the situation in terms of—only *one* of these components at a time. That is, they engaged in *sequential* rather than *integrated* decisionmaking. The teams also behaved as though there were a "tipping point" in their calculations. The implicit paradigms they employed to make sense of the situation in which they found themselves appeared to shift suddenly and dramatically.

Moreover, the implicit models of the situation they faced and plans of action which players seemed to form very early tended to be rigid, in the sense that they were substantially resistant to modification in light of new information. But they were also brittle: they persisted until they were overwhelmed by discordant data and unexpected behaviors, at which time they were abruptly abandoned in favor of new models.

We observed several other ways in which decisionmakers reduced the complexity of the situations they faced. The teams gave negligible attention to domestic political pressures and constraints (although this may have been in some respects an artifact of the game). Further adding to the risks of mutual miscalculation, each superpower in our game regularly tended to overstate the degree of control the other superpower exercised over its client. And many of the players complained about the time pressures and information overload they faced (which is certainly a well-known real-world crisis phenomenon).

Our second major hypothesis concerns the impact of changes in the international context. Between Game Three, conducted in the fall of 1987, and Game Four, conducted in January 1989, it would appear that a change in perceptions of the international context

brought about a substantively different outcome than in previous games. In brief, the outcome of Game Four was notable for the fact that the general international context as reflected in the game seems to have been profoundly influenced by a *changed image of the adversary*. This appeared to lead directly to a **stronger-than-ever convergence of superpower desires to avoid conflict, even at the expense** of their regional interests and relations with their allies. Each side's first preference appeared to be to exercise **mutual restraint in order to protect its relationship with the other superpower.**

Despite our inability to substantially reduce the costs, we believe that our adaptation of traditional gaming techniques has proved its usefulness as a tool for developing, and eventually testing, research hypotheses. The rapidly changing international environment suggests an interesting array of scenarios for exploration in future games.

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I. INTRODUCTION

Gaming techniques have long been used to help acquire vicarious experience in the management of crises and the conduct of military operations. As part of our Carnegie-sponsored project on "Avoiding Nuclear War: Managing Conflict in the Nuclear Age," we conducted an experiment to investigate whether traditional gaming techniques could be adapted to new purposes.

The more familiar kinds of political-military games have been used primarily to *train* present and future decisionmakers, and to *exercise* various kinds of procedures and operations. Our goal, by contrast, was to explore the utility of gaming as a *research tool*, i.e., a way to formulate and test a variety of research hypotheses related to the management of superpower crises. Specifically, we sought to design a game with which to examine the multiple interactions within and between the superpowers, and between them and their allies and clients, allowing these interactions to determine the dynamics and result of the crisis (rather than forcing the game toward a preordained conclusion).

This goal, in turn, entailed several other requirements not usually imposed on a traditional political-military game. Among these were the need for (a) an easy but comprehensive system for *recording the game play* for later analysis, and (b) a game design that facilitated replicability, and permitted the value of key variables to be changed and the game to be "rerun"—capabilities not usually included in the design of traditional crisis simulations. A notable addition to our simulations was a period for teams to communicate directly, to simulate the bargaining and negotiating that would actually occur during a crisis. We adapted RAND's computer-based electronic mail system for this purpose.

We believed this application of gaming to be novel, and that there was little prior experience on which to predict either its feasibility or its payoffs. Accordingly, from the beginning we adopted an experimental approach.¹

Our experiment included two "system tests" (primarily intended to evaluate and refine the game procedures and supporting hardware) and two "pilot runs"² that allowed us to evaluate and improve the game materials, and to begin an exploration of substantive

¹ In a concurrent but separate project funded by a government sponsor, another RAND team also adopted the use of direct interteam communications via RAND's electronic mail system for gaming purposes.

² The "pilot runs" were designated Games Three and Four, and are referred to as such in the text.

research hypotheses. This report on our gaming experiment begins with a description of the design of the games and the scenario employed. The next section summarizes our observations and presents some tentative research hypotheses generated during Games Three and Four. The final section presents our conclusions on our results in designing a methodology that met our criteria for using gaming as a research device.

II. GAME DESIGN AND PLAY

GAME DESIGN REQUIREMENTS

Our distinctive research objectives had important implications for the design and organization of our game. Some of these manifested as different responses to familiar issues that game designers often face. Others were unique requirements not confronted in the design of traditional political-military games. It quickly became clear that we would be unable to satisfy all of our requirements simultaneously in a single—or even several—game runs. Thus, we faced a series of "tradeoff" issues in the very design and conduct of our experimental games.³

In contrast to the typical game, which usually is intended to have (and often requires) a specific, preordained result (e.g., the outbreak of war, the decision to cross the nuclear threshold), our game design had to be indifferent among possible outcomes. That is, given our interest in understanding escalation processes and superpower crisis management, we had to:

- Construct a plausible crisis situation in which the superpowers were engaged but whose outcome was uncertain.
- Let the dynamics of a game play shape whether the crisis eased or intensified.
- Regard a game that ended in a political solution to be as valid (and interesting) as one that ended in conflict.

This requirement, in turn, meant that the Control team had to perform a delicate balancing act—to keep the game moving in substantively worthwhile directions, but also to avoid driving it toward an outcome of self-fulfilling prophecy—a result of dubious research interest.

Another unique design requirement concerned communications between the playing teams. In the traditional political-military game, direct communication (i.e., unfiltered and unconstrained by Control) is prohibited to ensure that the game does not get diverted from achieving its predetermined objectives (e.g., exercising nuclear release

³ See William M. Jones, *A Game Design for the Exploration of Nuclear War Avoidance Issues* (forthcoming) for details of the game design, and *On Free-Form Gaming*, (The RAND Corporation, N-2322-RC, August 1985), by the same author, for a more general discussion of this type of gaming.

procedures). Given that negotiations, threats, bargains, and bluffs—both explicit and tacit—are the essence of crisis bargaining, however, our game design had to permit such direct communications between the playing teams. The Control team consequently faced the novel task not only of facilitating and monitoring communications, but also of keeping the game moving in worthwhile directions without interfering with those communications.

We adapted the existing RAND computer-based electronic mail system to meet these multiple requirements. All communications between the playing teams were in writing, i.e., transmitted and received by means of electronic mail, with copies going automatically to Control to facilitate monitoring (and intervention where necessary). (See Fig. 1.) The electronic mail system also was used by the playing teams to record and send move papers to Control, and by Control to transmit the scenario projections. Using these procedures, we were able to permit communications among the teams in a relatively efficient, economical, and disciplined manner, while also automatically producing a permanent record for postgame analysis. At the same time, this process imposed some costs. These are addressed below.

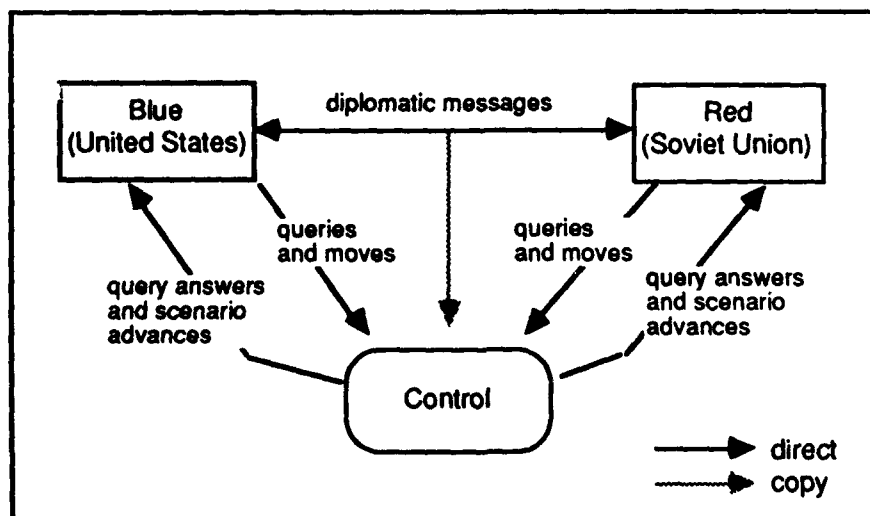


Fig. 1—Game Teams and Communications Flows

Our theoretical perspectives led us to be interested in *multiple* sets of interactions. On the one hand, we obviously were concerned with the interactions *between* the two superpowers ("Red" and "Blue" in the parlance of the game). On the other hand, the

essential role that intelligence processes, military operations, etc., play in the escalation process led us to be interested in interactions among the relevant actors *within* each of the superpower teams (e.g., among field commanders, military headquarters, and civilian policy officials). We likewise were interested in those *interactions among third parties* related to one or the other superpower (e.g., as an ally, client, surrogate) that could have led to the direct involvement of both superpowers, and in the *dynamics of the relationship between a third party and the superpower*—that is, to what extent does the superpower control the client, and to what extent might actions of the client force the superpower's hand (the "tyranny of the weak," as we came to call it)?

Although all of these relationships and interactions have likely research significance, we came to the conclusion that any attempt to investigate all of them simultaneously in any single game would be unmanageable. Accordingly, we decided to proceed conservatively and incrementally, recognizing that we were omitting some potentially important interactions from each of our game runs and imposing real penalties on our research interests. We limited ourselves to two playing teams per game. In three of our four simulations, the playing teams were assigned the roles of the political leadership of the United States and the Soviet Union. (In an earlier pilot run, the two playing teams simulated, respectively, the political leadership of the United States and their military advisers.) Control simulated all of the other relevant actors—subordinate national agencies (e.g., intelligence, military commands, embassies), extragovernmental actors (e.g., Congress, the press), and other countries, including Libya and Egypt, each of which was represented by a regional expert on the Control Team.

Finally, our theoretical emphasis on the dynamics of the escalation process led us to be interested in two relatively distinct scenarios. In the first, both superpowers are directly and immediately engaged, and both have high stakes from the outset, e.g., a severe crisis between NATO and the Warsaw Pact. Such scenarios are the usual focus for analyses of nuclear deterrence and escalation. The general expectation is that a superpower military confrontation, if one somehow emerged in such circumstances, would run substantial risks of rapid escalation.

From the perspective of escalation dynamics, the second scenario presents a somewhat different case. In it, both superpowers become engaged, but their *a priori* stakes are relatively low, e.g., as a consequence of actions by their respective clients in the Third World. In this scenario, the prospects for superpower confrontation and escalation would depend in large measure on the extent to which their stakes grew as the crisis unfolded, and on the balance between each side's desire to defend its regional

interests and its need to control the risks associated with a superpower confrontation. The risks, nature, and pace of the escalation process in such circumstances would be, we expected, quite different from the case of a military confrontation in Europe.

Our substantive concerns led us to be interested in both kinds of scenarios, as well as in the case in which the latter "low stakes" confrontation evolved into one that resembled the former (e.g., a military conflict spreading from the Persian Gulf to Europe). Once again, however, practical considerations of game management required that we confine a given game to only one of the two situations.

GAME STRUCTURE AND PLAY

We decided to concentrate on the "low stakes" case, both because it has not been examined as thoroughly in the literature and because it appeared to offer unusual opportunities for insights into the dynamics of the escalation process. Moreover, within the time and resource constraints of our exploratory gaming, it was not possible to conduct games based on both of the scenarios. Accordingly, what follows is a description of our simulations, based on a "low stakes" scenario.

For the reasons discussed above, we were interested in exploring a case in which the two superpowers found themselves in a confrontation that did not, at least at the outset, directly engage their vital interests. We therefore selected a scenario in which the superpowers were dragged into a confrontation by their regional clients. That is, we constructed a set of circumstances in which the stakes were high for the regional actors, but derivative for the superpowers (in the sense that their inherent direct interests in the region were perhaps less important than each one's success or failure as a superpower, as reflected in its ability to protect its client-ally).

For the case to support our research interests, the scenario had to involve regional actors that had substantial military forces, circumstances that held significant potential for escalation, and logistical or operational problems which increased the chances that the two superpower sponsors would face a real choice between direct involvement or their client's humiliation. Finally, we wanted a case that could be projected (for scenario writing purposes) into the near future (e.g., 1990) so that *current* descriptions of military capabilities, regional developments, global context, etc., could be readily and plausibly adapted. This required the selection of a smoldering regional conflict, but one that was neither contaminated by contemporaneous developments (e.g., the Iran-Iraq war) nor likely to lead the participants simply to invoke a rerun of recent historical outcomes (e.g., the Arab-Israeli wars).

Table 1
INITIATING SCENARIO: CHRONOLOGY OF EVENTS⁴

Year	Month	Event
1989	Spring	U.S. reported to sign secret military agreement with Egypt to provide support against Iranian threat.
	Summer	Death of Khomeini. Collapse of Labor-Likud coalition; election of hard-line Likud-led government. Intifada intensifies.
	Fall	Formation of united "Arab Front," including Libya, against Israel.
	Fall/Winter	At Kadaffi's invitation, Soviets begin to establish increased military presence in Libya.
1989/90	Winter	Terrorist incidents begin to increase; debate in U.S. on whether Libya is behind them or not. Mubarak believes Libya sponsors attempts to destabilize his government.
1990	Summer	Several terrorist incidents or near-incidents in Europe and U.S.
	August	Egypt joins other Arab countries in adopting resolution condemning Israel and U.S. Libya broadcasts threats against Mubarak government.
	September 7	Mubarak informs U.S. ambassador of intention to abrogate Egypt-Israel peace treaty. He is persuaded to defer his decision.
	September 15-30	More terrorist incidents in U.S., Europe. Assassination attempt against Mubarak in Cairo; Egypt goes on military alert against Libya.
	October 1-10	U.S. rejects Egyptian demand for support of invasion of Libya, but places 6th Fleet on alert; two carrier battle groups positioned off Libyan coast. Increased Soviet naval activity in Mediterranean.
	October 10	Car bomb explosion at Los Angeles Int'l. airport kills 15, injures 75. U.S. intelligence supports Libyan link.
	October 12	U.S. naval aviation bombs military installations in Tripoli, Benghazi; some Soviet advisors killed.
	October 14	Egyptian forces cross into Libya, quickly overwhelming defenses.

The intersection of these considerations led us to construct a scenario built around the prospect of an Egyptian invasion of Libya, provoked by Libyan-sponsored international terrorism which Cairo believed threatened (among other things) the survival of the Egyptian regime. (See Table 1.)

⁴ Table 1 summarizes the scenario for Game 4. Initiating scenarios for both games and summaries of the game moves are contained in the Appendix.

Using this scenario, we wanted to investigate the dynamics as the superpowers maneuvered to manage the risks of a direct military conflict between them while trying to protect or advance their regional interests and prop up their respective clients. This required us to experiment with the details of the scenario over the course of our pilot games to ensure that the participants believed they confronted such a balancing act, one that entailed real dilemmas.

We found that, at least for our game participants, there was a significant reluctance to run the risk of a military confrontation with the other superpower, even if that meant placing the regional client in jeopardy, sanctioning an erosion of regional interests, and establishing damaging precedents for relations with allies and clients in other regions. It proved difficult to persuade the participants that they had to perform a delicate balancing act, because of their tendency to give overwhelming weight to the avoidance of escalation over an issue that they perceived as being of limited importance.

As a result, we found that we had to "ratchet up" the scenario over successive game runs by presenting the game participants with increasingly dramatic *fait accompli* by their clients (e.g., an Egyptian invasion of Libya despite U.S. objections) in order to confront them with what they saw as genuinely unattractive alternatives. Clearly, however, this raised the likelihood of "scenario rejection"—that is, the participants would substitute their own models and images of the actors they were playing, and ignore the ones given. The game designers, therefore, also had to strike a balance: if the scenario permitted too much discretion to the participants, the game quickly degenerated into desultory moves of negligible research interest. On the other hand, if the scenario provided too much direction, the participants tended to find it excessively constraining.

If the behavior of our game participants is generalizable, it suggests that the superpowers may be so concerned about the risk of direct military conflict that they are prepared to pay considerable costs to their other interests in order to keep that risk at a minimum. As will be discussed below, however, this tendency to risk aversion appears to be somewhat unstable, and can change suddenly and dramatically during game play. Moreover, in our final game, the impact of a changing real-world international context—a more benign image of the adversary and a less competitive superpower relationship—resulted in an early resolution of the game dilemma.

III. OBSERVATIONS AND HYPOTHESES

INCENTIVES FOR CONFRONTATION INHERENT IN THE SCENARIO

Briefly, the scenario we employed in our crisis simulations posited the following situation: A series of international terrorist incidents, including an apparent assassination attempt in which the Egyptian leader was slightly injured, leads President Mubarak to conclude that the Libyan leader, Colonel Kadaffi, seeks to destabilize and ultimately topple his regime. Mubarak proposes to the U.S. a joint military action against Kadaffi, which the U.S. refuses, opting instead for a unilateral air strike against selected Libyan targets. Mubarak, however, desperate to prevent his regime's collapse, alerts his armed forces and invades Libya, perhaps hoping to force the U.S. to come to his assistance, since without its logistical support he will probably be unable to pursue his offensive as far as the Libyan capital. The U.S. is faced with the dilemma of allowing its principal regional ally to face a humiliating and probably regime-threatening defeat if it does not intervene, versus running the risk of a direct clash with Soviet troops introduced to support a crumbling Libyan defensive line. Compounding the dilemma for the U.S. are uncertainties about whether eliminating Kadaffi would actually bolster the Egyptian regime or solve the broader problem of terrorism, since it is a matter of debate just how much control the Libyan leader actually exercises over the various international terrorist groups. However, the American public continues to associate Kadaffi with international terrorism, and is increasingly demanding that the administration "do something" about terrorism. The incentive to help Mubarak avoid defeat and to respond to domestic political pressure on terrorism is the engine of a possible confrontation with the Soviet Union.

"Prisoner's Dilemma"

In principle, therefore, the game participants faced a series of interrelated tasks that constitute a variant of the classic "prisoner's dilemma."⁵ Each team playing a superpower had to protect its regional stakes, attend to global and domestic political implications, and manage its relationship with the other superpower. On the one hand, each wanted to avoid a superpower confrontation that could lead to direct military conflict. On the other

⁵ On game theory in general, and prisoner's dilemma in particular, see Martin Shubik, *Game Theory in the Social Sciences* (Cambridge, MA, MIT Press, 1982), pp. 254 ff.

hand, neither side wanted to find itself in the position of having its regional interests undermined because the other exploited its restraint. Indeed, if there were a reasonable expectation that the other superpower would exercise self-restraint as well as restrain its client, there might be a strong temptation to advance one's own regional interests at the other's expense.

As depicted in Fig. 2, these interactions can be highly volatile and can lead to results that neither side wants or expects.⁶ That is, if both sides try to pursue their first preference—take advantage of the other's self-restraint in order to advance one's own regional interests—but miscalculate, both could end up in their least preferred position: superpower confrontation (cell D). But if either side pursues a strategy of restraint as the safer, second-best course of action, it invites exploitation by the other side (cells B and C). In that case, one side would then have the best of both worlds—an enhanced regional position (with attendant global benefits) and no superpower confrontation—with the other side paying all the costs.

		Blue	
		restrain	exploit
Red	restrain	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">A</div> <div style="text-align: center;"> <div>2</div> <div>2</div> </div> </div>	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">B</div> <div style="text-align: center;"> <div>1</div> <div>3</div> </div> </div>
	exploit	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">C</div> <div style="text-align: center;"> <div>3</div> <div>1</div> </div> </div>	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">D</div> <div style="text-align: center;"> <div>4</div> <div>4</div> </div> </div>

Fig. 2 — Competing Superpower Stakes in Regional Conflicts

Such an outcome would appear to be inherently unstable, and the situation would be likely to evolve either in the direction of mutual restraint, or of mutual exploitation.

⁶ In the figure, "restrain" means the superpower restrains its client in the interest of preserving peace and avoids exploiting the situation to gain unilateral advantage; "exploit" means that it takes advantage of its client's actions to try to advance its own regional position at the expense of the other superpower. Entries in the matrix represent each side's rank-ordered utility of the four possible pairs of policies from 1 (best) to 4 (worst). Numbers in the upper left corner of each cell are Blue's rankings, and Red's in the lower right.

Although both superpowers presumably would prefer the former to the latter, their ability to achieve that preference would seem to depend on the quality of the communications between them, their skill in managing each other and their respective clients, and their luck in avoiding miscalculations. In brief, unless both superpowers can communicate a credible intention both to exercise self-restraint and to successfully restrain their respective clients (cell A), the dynamics of their interactions could result in mutually increasing stakes *during* the crisis, and could lead to a military confrontation that their precrisis stakes would have led them to avoid.

Tyranny of the Weak

To make matters worse, each side may suffer from the "tyranny of the weak," i.e., a credible threat by a client who is more than a superpower puppet to embark on a course of action that, absent support by the superpower, would lead to severe damage to itself and its patron's interests. This is essentially the situation that Blue confronted in our third and fourth games. Egypt had invaded Libya—despite U.S. warnings and objections—and had inflicted casualties on both the opposing Libyan force and its Soviet advisors. But it then found itself—due to its poor logistical capabilities—stuck and vulnerable in Libya, able neither to advance nor to withdraw. The U.S. thus faced the choice between providing direct support for its unruly ally or risking seeing substantial Egyptian forces and, probably, the regime in Cairo destroyed. Providing support, however, would mean increasing the risk of a direct military confrontation with the Soviet Union, which had come to the aid of its putative ally and sought to avoid a humiliating outcome.

HOW PLAYERS AVOIDED THE TRADEOFF: SIMPLIFYING DECISIONMAKING BEHAVIORS

We observed during the course of our gaming experiment that decisionmakers tended to avoid confronting the dilemmas that faced them, which would have meant consciously prioritizing values and making tradeoffs between them. Rather, we observed several behaviors which, consciously or unconsciously, helped them to sidestep the problems. In terms of a hypothesis, one might say that *decisionmakers seek, consciously or not, to avoid directly confronting dilemmas and tradeoffs, through a variety of simplifying mechanisms*. We describe those mechanisms below.

Sequential Decisionmaking

Each superpower tended to define the situation it faced in terms of two components: (a) managing relations with its client, and (b) managing relations with the

other superpower. Typically, however, both attended to—and, indeed, defined the situation in terms of—only *one* of these components at a time. That is, they engaged in *sequential* rather than *integrated* decisionmaking.

As noted above, until a client presented a dramatic *fait accompli*, client management was not so much consciously sacrificed to the need to manage the superpower relationship as it was simply ignored. In our third pilot run, when it no longer could be ignored, it abruptly came to the fore, submerging efforts to manage the superpower relationship: the teams quickly accepted much higher risks of direct military conflict as each maneuvered to rescue its client. That is, the teams behaved as though there were a "tipping point" in their calculations, if not in their perspectives. The implicit paradigms they employed to make sense of the situation in which they found themselves appeared to shift suddenly and dramatically. Indeed, in our games this kind of paradigm shift *had* to occur before the players could view the stakes as high enough to warrant significant military commitments. Whether or not intentional and conscious, this single-context sort of decisionmaking had the result of simplifying a complex situation and minimizing the tradeoffs that should have been confronted. In our fourth game, discussed below, the impact of a changing international context led the teams to resolve these tensions in other ways: propping up clients took a distinct back seat to preserving a favorable climate between the superpowers, and the "tipping point" never came. A changed image of the adversary meant that neither side believed the other was bent on exploiting the situation for its own ends and at the other's expense—the dilemma was less acute or even absent.

Reducing Complexity

Other behavior during the third game suggested similar simplifying rules. The players seemed to form implicit models of the situation they faced and plans of action very early. These models and plans tended to be rigid in the sense that they were substantially resistant to modification in light of new information. But they were also brittle: they persisted until they were overwhelmed by discordant data and unexpected behaviors, at which time they were abruptly abandoned and new models were substituted wholesale. Although the players on each team varied widely in how much they thought about the other side's objectives, stakes, and constraints, there was little indication that such considerations were systematically incorporated into the decision calculus of any of the playing teams (although this was a more explicit consideration in the final pilot run, when teams were obliged to wrestle with their image of the Soviet Union).

The teams also gave negligible attention to domestic political pressures and constraints, despite several cues in the game scenario and repeated efforts by Control to increase the salience of these factors. One possible explanation for this behavior could lie in our selection of game participants—primarily experts in the national security field, and not politicians who would normally be expected to be more sensitive to the domestic political consequences of their actions. Alternatively, although not exclusive of the other explanation, the indifference to domestic politics may have been one more indication of strong pressures to render the situation more manageable by means of drastic simplification. (In either event it illustrates the limitations of such simulations for reproducing the complexity of a real-world event.)

Further adding to the risks of mutual miscalculation, each superpower in our game regularly tended to overstate the degree of control the other superpower exercised over its client (and occasionally exaggerated the control it could exercise over its own ally). As a result, each superpower tended to believe that any hostile action by the other's client was with the opposing superpower's support (if not at its instigation), or, as in the final game, if not imputing hostile intent to the other superpower, continued to believe that it could act to restrain and control its client.

Finally, many of the players complained about the time pressures and information overload they faced. Several believed that these problems were game artifacts (which they attributed to our use of the electronic mail system for communications). While the complaints may be partially valid, the previous government experience of several team members suggested that those troublesome factors were reasonable surrogates for real world phenomena that decisionmakers would be likely to face in a crisis. In any event, they constituted yet another pressure on the players to simplify by concentrating on a few variables or facets of the situation they faced, while ignoring critical information and competing interests.

THE IMPACT OF A CHANGING INTERNATIONAL CONTEXT

In our initiating scenarios, we sought to present the superpowers with a basic dilemma—the choice between protecting or advancing their regional interests on the one hand, and minimizing the risks of confrontation with the rival superpower on the other. Through our third game, our observation was that the teams tended to avoid facing this dilemma and its difficult tradeoffs by concentrating on one horn of the dilemma at a time. Teams exhibited sequential decisionmaking: both sides at first sought primarily to dampen the crisis, and restrain their allies. However, faced with a deteriorating local

situation and the risk of disaster for their allies (and loss of prestige for themselves), both sides rather suddenly shifted their focus to concentrate on protecting their allies and shoring up their position and prospects—even though that meant accepting a higher risk of a direct confrontation with the other superpower.

Between Game Three, conducted in the fall of 1987, and Game Four, conducted in January 1989, it would appear that a substantial change in perceptions of the international context brought about a substantively different outcome than in previous games, notable particularly for its one-sided resolution of the dilemma with which we attempted to confront the players. (Table 2 below summarizes the scenarios and outcomes of the two games.)

Table 2
SUMMARY OF GAMES THREE AND FOUR

Game	Dates Conducted	Teams	Level of Pre-Game Escalation	Outcome
Three	9/30/87-10/2/87	Red, Blue, Control	Egyptian invasion of Libya; no direct U.S.-Soviet combat.	Red and Blue introduce troops to prop up clients' military positions; then negotiate settlement.
Four	1/19/89-1/20/89	Red, Blue, Control	Same as in Game 3; more extensive Soviet-Libyan military cooperation.	Red and Blue refuse to support clients; negotiate settlement; Soviets agree to withdraw from Libya.

If in Game Three the two sides sought to avoid making tradeoffs by facing only one horn of the dilemma at a time, in Game Four they simply appeared not to see a tension between objectives at all, but rather to see only one objective—to avoid a deterioration in their mutual relations, even at the expense of relations with their client-allies. Observations during game play and the postgame analysis clearly revealed that, for both teams, an altered image of the USSR under Gorbachev underlay this change.

Despite Red's deeper involvement in Libya in the Game Four scenario, the Red team, unlike in the previous game, decided that its position in Libya was not worth protecting at the expense of its international reputation and a confrontation with the United States. The Red team was especially notable for having never seriously sought to use the situation to advance its regional interests. To the contrary, the team's primary

consideration was how to disengage itself from an entanglement with Libya which it saw chiefly as a liability to its interests and reputation. While it was not prepared to let Egypt sweep to an easy victory, the Red team did not make the kinds of preparations to provide direct military support that it had in the previous game, seeking instead to reach an accommodation with U.S. and Egyptian political aims without suffering a direct military defeat. The Soviet Union thus offered to reduce its presence in Libya in return for a resolution of the crisis which did not "reward Egyptian aggression." Whatever regional interests the Soviet Union felt it had to protect in Game Three, in Game Four its distaste for the Libyan leader and its desire above all to pursue better relations with the West and enhance its international image led the Soviet leadership to sacrifice what it judged to be a marginal interest in preserving its position in Libya to the broader interest of preserving good East-West relations.

This restraint was mutual. Both sides believed that the other was prepared to exercise a restraining influence on its regional ally, in contrast to the earlier game, where both sides appeared to fear that the other might exploit the situation to unilateral advantage. For its part, the U.S. steadfastly refused to support the Egyptian offensive. Once having decided that the Red team represented a Gorbachev-like regime, the Blue team felt more at liberty to put pressure on its client to desist in its invasion of Libya, because it was more confident that the Soviet Union would not seek unilateral advantage from the situation. Moreover, in its deliberations about whether or not to take the opportunity of their client's attack on Libya to rid the world of Kaddafi, the Blue team decided against doing so. Its reasons included a disinclination to involve the U.S. too deeply in its client's military adventure as well as doubts about the political feasibility of toppling Kaddafi and the political sustainability of military operations to that end. But, perhaps most importantly, they also included a desire to avoid an action that would be seen as humiliating the Soviet Union, whose client-ally Kaddafi was postulated to be. (In any event, the Red team's desire to extricate itself from its Libyan involvement served the U.S. goal of reducing the Soviet presence in the region.)

In brief, the substantive outcome of Game Four was notable for the fact that the general international context as reflected in the game seems to have been profoundly influenced by a *changed image of the adversary*. Both Red and Blue had different expectations of the other's behavior from our previous experience: they expected restraint by the other side, not exploitation for unilateral advantage. In contrast to the payoff matrix shown in Fig. 2 above, the teams' preferences had changed, as illustrated in Fig. 3:

		Blue	
		restrain	exploit
Red	restrain	<div>1</div> <div>A</div> <div>1</div>	<div>2</div> <div>B</div> <div>3</div>
	exploit	<div>3</div> <div>C</div> <div>2</div>	<div>4</div> <div>D</div> <div>4</div>

Fig. 3—Competing Superpower Stakes in Regional Conflicts: Effect of a Changing International Context

Where previously each side's first preference was to take advantage of the other's self-restraint to advance its own regional interests—thereby running the risk of ending up in cell D (superpower confrontation)—in Game Four the first preference appeared to be to exercise mutual restraint in order to protect the relationship with the other superpower. In earlier game runs, the teams had difficulty avoiding mutually increasing stakes during the crisis; in the fourth game, the dynamics of their interactions led toward swift resolution of the crisis (cell A). In game theory terms, the utility weights of each team's two strategies had changed.

In short, there was considerably less zero-sum thinking about regional stakes in Game Four than in Game Three, and indeed independent convergence toward a solution which satisfied both parties (if not their clients). If zero-sum thinking has dominated international relations in the Cold War era, and has even been the foundation for most modern deterrence theory, it was clear that, at least in this simulation, both sides worried less about the other side seeking unilateral advantage than they did in previous game runs, and historically.

IMPLICATIONS AND POLICY ISSUES

How much significance should we attach to our observations from our gaming experience? Games clearly cannot simulate the highly charged atmosphere and numerous and complex interactions of a real-world crisis. Can any legitimate conclusions be drawn

from a simulation in which ersatz "decisionmakers" act in a context of oversimplified ersatz "history"?⁷

At a certain level of generality, we believe that our gaming experiment, with its unique emphasis on interteam communications and letting the dynamics of the scenario determine the outcome, has achieved two things. First, it has allowed us to generate at least one hypothesis about how decisionmakers behave when they are confronted by competing objectives—namely, that they will avoid directly confronting the dilemma and its tradeoffs by engaging in sequential decisionmaking. We emphasize that this is a hypothesis, not a conclusion. Further exploration of this phenomenon, both in game settings and through case studies of historical crises, would serve to refine (or refute) it. If confirmed, it suggests an important lesson that could be incorporated into games used as training tools for senior decisionmakers.

Our second hypothesis, that changes in the international context have significant effects on superpower crisis behavior, echoes conclusions which others are also beginning to draw.⁸ As a predictor of future superpower crisis behavior, however, this observation must be even more tentative a hypothesis than our first. It does suggest new and potentially fruitful areas of research for future games, including new scenarios written to capture some of the uncertainties of the changing political order in Europe and the Soviet Union. Some of these might include: the consequences of regime instability or even a collapse of central authority in the Soviet Union (the teams would include the United States and several USSR cells); a European crisis precipitated by, for instance, a Polish-German border dispute, to explore how amicable the new superpower relationship must be before such a crisis is also "low-stakes" (United States, USSR, Control as Poland and Germany); or a game with nuclear use by a third party (United States, USSR, Control as third nuclear-armed nation).

Our observations of decisionmaking behavior lead to the question of whether there might be any procedural techniques or organizational steps that policymaking bodies could adopt to mitigate the apparent tendencies toward oversimplification, abrupt paradigm shifts, and problems in credibly communicating one's regional and global stakes and constraints to the other superpower. To reinforce the sense among superpower policymakers that they face a delicate balancing act, one possibility would be to invite a trusted advisor who was knowledgeable about the issues and the events—but who had not

⁷We are grateful to RAND colleague Robert A. Levine for this information of a skeptic's perspective on the uses of gaming.

⁸ See for example the *New York Times* editorial, "The Cold War is Over," April 2, 1989.

taken a regular part in the crisis decisionmaking—to join the deliberations from time to time to raise questions, challenge assumptions, identify gaps in assessments, and otherwise help ensure that the policymakers had an appropriately comprehensive view. The goal, in brief, would be to institutionalize the function of a "sanity check."⁹ Although history contains occasional examples of such a function (e.g., Clark Clifford), their rarity suggests the precariousness of such a role: a trusted insider who is not an influential participant in crisis decisionmaking.

Our observations in the final simulation suggest the importance of changes underway in the international context and some of their possible implications. Clearly, context matters. Context fills in the blanks where hard information in a crisis is not available. This context is provided to one degree or another by images: of the adversary, and of the underlying state of the political relationship between the two superpowers. It has always been true that different leaders in similar circumstances will respond differently, because of their differing images of the adversary, of the nature of conflict itself and how best to resolve it, of their domestic political imperatives, and so forth. In our games, exactly how much this changed context was "objective," that is, reflected changes that were independent of the personalities involved in the game runs, and how much was a result of changes in players between runs, is unknowable.

Assuming that the changes we observed in our game experience are both objective and enduring (if not necessarily permanent), what are their implications for crisis management?

First, recalling Fig. 3, a less competitive relationship, less interested in unilateral gain, suggests that crises might tend toward an "equilibrium solution" of mutual restraint and political resolution. The likelihood of high-stakes crises growing out of situations in which the stakes are intrinsically low may thus be decreasing.

A less competitive international environment suggests many possible implications for the risks of inadvertent war or escalation: for example, lower risks of "hair trigger" responses, and changing proportions of Type I and Type II errors—e.g., failure to receive warning of an attack that *is* occurring, versus mistakenly perceiving warning of an attack that is *not* actually underway.

Not all of the possible implications are positive. For instance, a decrease in slow-track crises of the type we postulated does not necessarily mean that areas of the world

⁹ Or what Janis calls a devil's advocate. Irving L. Janis, *Victims of Groupthink* (Boston, Houghton-Mifflin Co., 1972), pp. 215-218.

where the superpowers continue to have vitally important stakes—notably central Europe, Northeast Asia, and perhaps also the Persian Gulf—will also be immune from serious, fast-track superpower confrontations. Moreover, while a more cooperative, less risk-prone superpower relationship is welcome, national leaders on both sides may not be well prepared when crises do erupt. In this respect, gaming as an educative device for senior decisionmakers may prove an increasingly useful and important part of crisis preplanning efforts.

Similarly, there is an ambivalent quality to what might otherwise appear to be the unalloyed blessing of the evolution of the Soviet system toward a more open and participatory—i.e., Western-style—government: namely, that the loss of the flexibility a dictatorial system enjoys will degrade its crisis management capabilities.

One possibility for reducing the risks of regional flash points between the superpowers would be to take steps to improve the dialogue between them about the respective regional issues—in peacetime, *before* any crisis erupts. One consequence of such an approach, however, is that it would establish or increase the influence of each superpower in areas in which the other now predominates. The choice facing policymakers is whether reducing the chances of a superpower confrontation in the future is worth the certain and present price of sharing influence in key areas with the other superpower now.

IV. CONCLUSION: GAMING AS A RESEARCH TOOL

We are reasonably confident that the objective of replicable (or, more precisely, repeatable) games can be achieved by exploiting our adaptation of the electronic mail system, supported by careful record keeping. This procedure permits the conduct and recording of "crisis bargaining" in ways that traditional manual games usually cannot do. This procedure also holds the promise of being able to change key variables and "rerun history," as well as the possibility to begin one game run where the last one ended (rather than starting anew each time). It is this aspect of our gaming methodology which permits the further exploration and testing of hypotheses such as those developed thus far.

We believe that the communications feature of the game is a major and important innovation, and that our adaptation of the electronic mail system for this purpose has been quite successful. We now have a reliable system that can be operated at low cost with modest technology, and that provides for rapid communication and efficient record keeping.

We do not know how well the game can support the interactions of multiple teams, a major research interest. Our evidence is scant since we have confined ourselves thus far to game runs in which there have been only two playing teams. On the basis of that limited experience, it appears likely that adding playing teams (or cells on teams) could introduce substantial additional complexity—especially in the communications phase—and a greater burden on the Control team. It may be possible to make the added complexity and burden more manageable by adding more playing teams (or cells), for instance to simulate "Green" and "Yellow" teams (e.g., Libya and Egypt). If so (and given sufficient resources), it might be worthwhile to structure a series of games that would permit both intensive investigation of interactions among a smaller set of teams in some of the games, and less extensive investigation of a larger set in other games in the series.

One of our goals has been to reduce the amount of time between game moves (which is essentially "down time" for members of the playing teams) by anticipating likely developments and preparing alternative scenario projections in advance. It was hoped that these "prepackaged" scenarios could be quickly adapted to fit the specific decisions of the playing teams, rather than taking the time required to write a scenario projection from scratch. Our experience has been mixed. It appears that several game runs are required before the moves can be anticipated with enough precision to reduce the

plausible alternative scenario projections to a manageable number. It is unclear whether a given scenario would be utilized a sufficient number of times for *research* purposes for such advance preparation of scenario projections to pay off. It is more likely that such a technique would be valuable in games that are used more for *training* purposes and therefore are likely to be rerun many times using the same scenario.

The practical utility of employing political-military games as a research tool depends on reducing the costs in time, money, and manpower typical of the traditional political-military game, which often make gaming a prohibitively expensive undertaking. We were not able to substantially reduce these costs. Writing and refining the scenarios for each game, for instance, proved to be time-consuming and expensive; developing entirely new scenarios to explore other aspects of escalation and crisis management will require an even greater investment of time and resources. On the other hand, if these costs could be amortized across several games designed as a series in order to systematically explore a particular issue or set of issues, some economies of scale could be realized. The nonpersonnel costs of operating a game are relatively minimal: in our project, for example, only 7 percent were computer costs.¹⁰

The real and irreducible cost of gaming lies in its manpower intensity, since it requires bringing together a relatively large group of professionals for a period of two to three days for each game—this can mean, for a standard game, up to 50 to 75 “man-days” per game.

With these caveats, our overall conclusion is that the gaming techniques we have developed and adapted hold real promise of serving as a research tool to help formulate and explore important hypotheses. The value of the gaming experience is that it may allow researchers to examine some of the possible impact of the changing international context on superpower decisionmaking in crises. Hypotheses which would be difficult if not impossible to explore in nongame settings may be profitably examined in a game, and suggest useful directions for further research. Gaming clearly has the potential to offer interesting and important insights which are hard to tap or explore in any other setting. It thus has a distinctive contribution to make, which seems especially timely in a period when the international context is evolving in new directions, with as-yet unexplored implications for crisis management and behavior.

¹⁰ Eighty-two percent of the total costs of our gaming project went to professional salaries, including preparation of this Note and other documentation, as well as scenario development and game play.

Appendix

MATERIALS FROM GAMES THREE AND FOUR

This appendix includes the initiating scenarios from the third and fourth pilot runs, and summaries of the game moves. Game Three took place over a three-day period from September 30 to October 2, 1987; Game Four occurred on January 19th and 20th, 1989.

Game moves occurred in three phases. In Phase 1, the two players ("RED" and "BLUE") communicate with Control, which plays various roles (e.g., national military commanders, intelligence agencies, ambassadors, third countries, etc.). Teams ask for needed supplemental information from Control in its various roles in order to assess the situation and plan strategies. Phase 1 culminates in a written "Appreciation of the Situation" and "Initially Planned Actions" by each side.

Phase 2 consists of direct communications between RED and BLUE, and between each and a variety of third parties (with Control playing all third parties).

In Phase 3, the teams prepare "move papers," containing several required elements, including an updated appreciation of the situation, a description of actions directed to each team's "national agents" (e.g., military commanders, ambassadors, intelligence agencies, etc.), a news media release, and any messages to foreign nations the team wishes to transmit.

GAME THREE

Initiating Scenario: Summary

Game time begins on June 15, 1990. In the U.S., a Republican president is working well with a Democratic Congress. Foreign policy is generally regarded as more competent and coherent than in the recent past, but reflecting a strong substantive continuity with the Reagan administration. European confidence in American leadership has improved, and willingness to support U.S. foreign policy initiatives has increased. Observers believe there is a greater popular support in the U.S. to use military deployments in support of foreign policy objectives, but that belief has yet to be tested.

In the Soviet Union, developments have left Gorbachev frustrated and beginning to feel vulnerable. *Perestroika* has yet to produce real payoffs. The political benefits that he hoped would flow from the INF treaty have not yet materialized. Soviet foreign policy is on the defensive in the Third World. An agreement on Afghanistan broke down, the

Soviets felt compelled to reintroduce troops, and now find themselves back in the middle of the Afghan quagmire without any prospect of political settlement in sight, and without a figleaf of legitimacy for their presence. Although no serious opposition to Gorbachev has crystallized at the Politburo level, confidence in his leadership on both domestic and foreign policy issues is steadily eroding.

Kadaffi continues to assert his claim to leadership of the radical revolutionary Arab movement, and to support terrorist acts around the world. But several of the terrorist groups initially supported and trained by Tripoli have taken on a life of their own, and Kaddafi's control over them has become intermittent and unpredictable. He continues, however, to provide material support to them, and to endorse their objectives and actions in his speeches. The Soviet Union has maintained friendly political relations with Tripoli, and has a military presence in Libya in the form of a contingent of military trainers and advisors, frequent port calls, and occasional visits by small numbers of combat aircraft. Libyan arms purchases remain an important source of hard currency earnings for the Soviets. Moscow has never taken public issue with Kaddafi's wilder claims nor joined in international condemnation of Libyan support for terrorism, but the extent of its real control over Kaddafi is the subject of considerable debate.

Egypt continues to face serious economic problems—despite substantial infusions of U.S. and other Western assistance—and a growing movement of militant fundamentalists who exploit the large U.S. presence to play on Egyptian nationalist and religious sentiment. Mubarak is persuaded that Kaddafi is behind the trouble he is experiencing, believes that the very survival of his regime is at stake, and is determined to solve his problem one way or another.

During May and June 1990 a rash of terrorist incidents in the U.S. and Europe took several lives. On June 10, a car bomb at Los Angeles International Airport killed 15 and injured 75. Public opinion and political leaders are pressing for retaliation. In Egypt, fundamentalists attempted to assassinate Mubarak and succeeded in wounding him and inflicting numerous casualties among the Presidential guard. Mubarak holds Kaddafi directly responsible for the attack.

In the aftermath of the assassination attempt, Mubarak told the U.S. that Kaddafi has to be eliminated, and that an Egyptian invasion of Libya that destroyed him or forced him to flee was the only alternative. He proposed a combined operation with the U.S. providing naval, air, and logistical support. The U.S. refused to support or condone an invasion, but instead launched its own punitive air strike against Libyan targets that inflicted casualties among Soviet advisors. The Soviets responded with extraordinarily

harsh criticism, dispatched elements of its Black Sea fleet to the Mediterranean, and put military forces on alert.

A day later, Egyptian forces crossed the border and quickly overwhelmed Libyan defenses. The accompanying air strikes inflicted casualties among the Soviet advisors. A Soviet cruiser anchored off Benghazi engaged Egyptian aircraft which then attacked the ship, causing minor damage and casualties.

Move 1 (Game Time: June 15, 1990)

RED move 1 was largely a period of contingent planning and preparation for a possible move of military reinforcements from the USSR to Libya and the Mediterranean, following an urgent request for direct support from Kaddafi. BLUE Move 1 consisted of contingent preparations to provide logistics support to the Egyptian forces in Libya, BLUE having received an urgent request for such support (and for direct combat support) from Egyptian President Mubarak. BLUE and RED exchanged messages "rationalizing" their past actions and current postures. BLUE solicited Moscow's cooperation in removing Kaddafi (the irresponsible agent who had provoked the crisis), disavowing any intention of introducing U.S. combat forces in support of Egypt and promising to pressure Mubarak to withdraw his forces from Libya in exchange for Soviet cooperation in removing Kaddafi. RED's message to BLUE asserted Moscow's desire to defuse the situation but pointed out that Soviet personnel in Libya had been (and were still being) attacked by Egypt and that Soviet military responses would be unavoidable unless the Egyptian aggression was immediately reversed. Drawing on its personnel already in-country, RED took over manning of the Libyan air defense system. RED also alerted ground forces, fighter pilots and naval forces for possible deployment to Libya. BLUE determined that there was a risk that RED would introduce combat forces into Libya, and decided that, in such an event, it would provide commensurate military support to Egypt, and so informed Moscow. To that end, BLUE directed the preparation of various contingency plans for the deployment of forces, and for strikes against Libyan targets to prevent deployment of RED forces.

Move 2 (Game Time advanced by Control to June 19)

At dawn on June 18, Egyptian airborne forces were airdropped well ahead of the advancing ground forces near the Libyan oil terminal on the coast of Sidra. Later that day, Mubarak informed the U.S. ambassador to Cairo that he grudgingly agreed to the termination of the Egyptian force's advance demanded by the U.S., reserving the right to

consolidate the positions now held (to include the airdrop-attained position.) On June 16, Moscow had communicated to Washington a repeated demand for the halting of the Egyptian advance and promising future cooperation in preventing international terrorism while pointing out that Soviet forces might be introduced into the Libyan defense to protect Libyan sovereignty from any continuing Egyptian aggression. On June 19, having interpreted the Egyptian "consolidation" as being a continuation of its force's advance, Soviet military personnel in large numbers were starting to deploy by air from the USSR to Libya. BLUE informed RED that it was negotiating a halt to the Egyptian advance, looking for a way to defuse the situation while ensuring that Kadaffi-sponsored international terrorism would be ended. The U.S. demanded that Moscow arrange for Kadaffi to be removed from his position as Libyan leader, in effect threatening to join the Egyptians in combat if that was not assured.

RED moved the air-deployed Soviet forces from Tripoli to Marble Arch, where they were to confront — but not initiate combat with — the Egyptian forces and deter or defend against any further advance. BLUE's move was to accept Mubarak's consolidating move in the airdrop area and to show support for Egypt by airlifting needed military supplies to Cairo and Alexandria, positioning the Sixth Fleet in the Gulf of Sidra, off the Egyptian position on the coast, and deploying AWACS and accompanying fighters and tankers to Cairo West. BLUE's support agreement to Egypt was conditioned on a commitment by Mubarak to stop the advance. BLUE communicated to Moscow its shock at the Soviet overreaction, notified them of Mubarak's agreement to halt, and warned against any Soviet attack on the Egyptian forces. BLUE also pressured the Egyptians to begin withdrawal of their forces from Libya.

Subsequently, RED communicated to the U.S. its firm commitment to cooperate in suppressing international terrorism, informed the U.S. that it had instructed its deployed forces to avoid initiating any combat against Egyptian forces (unless attacked), repeated its demands for an Egyptian withdrawal, and, on that condition, committed the USSR to withdraw its own forces from Libya as soon as the Egyptians began to withdraw. BLUE's response was a message to Moscow indicating agreement and that it would bring irresistible pressure on Mubarak by refusing to provide any further essential logistics support except in support of a withdrawal. BLUE maintained its high state of force readiness in the area as insurance against possible Soviet duplicity.

The game was terminated at this point. The following day, all game participants met for a debriefing and discussion of their observations and conclusions concerning the game.

GAME FOUR

Initiating Scenario: Summary

Game time begins on October 15, 1990. In the United States, relations between the Republican president and the Democratic-controlled Congress have been strained over how to achieve lower budget deficits, and over the proper policy course to adopt toward the Soviet Union, with liberals advocating giving Gorbachev more breathing room to help *perestroika* succeed, and conservatives arguing that the U.S. should extract concessions now from a weakened Soviet leader. Following a resolution to the Central American conflict which conservatives viewed as a sell-out, the administration has become quite sensitive to criticisms of its alleged weakness in protecting U.S. interests and positions abroad.

The Soviet leader's domestic political position is increasingly compromised. *Perestroika* and *glasnost* have shaken up the Soviet economy and domestic political and social scenes without producing any tangible benefits for the populace. Not only Gorbachev's traditional conservative critics and the apparatchiks whose privileges are threatened, but also workers and even the intelligentsia appear disillusioned by the lack of progress. Soviet foreign policy is on the defensive in the Third World, particularly in the aftermath of the debacle in Afghanistan, which collapsed into chaos after the Soviet withdrawal. In an attempt to compensate for this and other setbacks, the Soviets have sought to exploit Arab frustration with the failure of the U.S.-PLO dialogue by increasing their support to both moderate and hard-line Arab states.

The Arabs have papered over their differences to form a united front in the face of the intransigence of a new Likud government in Israel, and an expansion in scope and violence of the *intifada*. The influence of the more radical, hard-line Arab regimes has increased, and the overall Middle East situation has grown more polarized. International terrorism has been on the rise. The Kaddafi regime, in a bid for Arab leadership, has softened its harshest rhetorical edges somewhat. Its comparative moderation has allowed it to reenter the Arab fold in the united front against Israel, and has allowed Gorbachev to rationalize an increased Soviet presence. By late 1989, the USSR had established a routine military presence in Libya, including regular port visits, a larger number of advisors, and even apparently some limited joint exercises. The total Soviet presence is about 8,000 technicians and advisors, along with a considerable quantity of stockpiled Soviet military equipment. Kaddafi, however, continues to be a wild card over whom no

one can exercise control, and whose support for, if not active involvement in, international terrorism continues to be suspected by many. While the exact degree of his control over terrorist groups is disputed, public opinion in the U.S. continues to hold him responsible for many terrorist acts.

Egypt continues to face serious economic problems—despite substantial infusions of U.S. and other Western assistance—and a growing movement of militant fundamentalists who exploit the large U.S. presence to play on widespread popular discontent. Mubarak is persuaded that Kaddafi is behind the trouble he is experiencing, including numerous acts of terrorism, and believes that the very survival of his regime is at stake. He is determined to break the link between Kaddafi and the domestic opposition one way or another. In recent months, the Arabs have increasingly sought to pressure Egypt to abrogate its treaty with Israel, a step which Mubarak finally concludes he must take. Fearing total American isolation from the Arab world, the U.S. president sends a personal message to Mubarak urging him to reconsider, and offering "tangible support" to meet Egypt's security needs. Mubarak reluctantly accepts to defer his decision, but makes it known that he will expect the U.S. to make good on its promises.

During September and October 1990, a rash of terrorist incidents in the U.S. and Europe took several lives. Public opinion and political leaders are pressing for retaliation. In Egypt, fundamentalists attempted to assassinate Mubarak and succeeded in wounding him and inflicting numerous casualties among the Presidential guard. Mubarak holds Kaddafi directly responsible for the attack.

In the aftermath of the assassination attempt, Mubarak told the U.S. that Kaddafi has to be eliminated, and that an Egyptian invasion of Libya that destroyed him or forced him to flee was the only alternative. He proposed a combined operation with the U.S. providing naval, air, and logistical support. The U.S. refused to support or condone an invasion, but instead launched its own punitive air strike against Libyan targets that inflicted casualties among Soviet advisors. The Soviets responded with the harshest criticism since Gorbachev's accession to power, dispatched elements of its Black Sea fleet to the Mediterranean, and put military forces on alert. Intelligence also picked up evidence of Soviet advisors' activity in Libya.

A day later, Egyptian forces crossed the border and quickly overwhelmed Libyan defenses. The accompanying air strikes inflicted casualties among the Soviet advisors. A Soviet cruiser anchored off Benghazi engaged Egyptian aircraft which then attacked the ship, causing minor damage and casualties. The U.S. Sixth Fleet, including two carrier battle groups, go on maximum alert off the Libyan coast.

Move 1 (Game Time: October 15, 1990)

In making its evaluation of the situation, the RED team considered that their involvement in Libya was the result of a mistaken "return to Brezhnevism." Soviet interests in Libya were insignificant, and Kadaffi was considered an unpredictable and unreliable ally. Soviet *core* interests remain East-West relations. While they considered that they could not abandon their ally, the RED team judged that BLUE would not allow Mubarak a free run in Libya, especially if to do so increased the danger of a direct clash with the Soviet advisors.

Similarly, BLUE believed that RED was not interested in taking too many risks for Kadaffi's sake, and sought above all to avoid a direct U.S.-Soviet confrontation.

The two teams exchanged messages, with RED calling for a ceasefire in place, and pledging to work with Kadaffi on terrorism. BLUE informed Mubarak that the U.S. would not support his invasion, and that he must reach a settlement of his grievances in the context of withdrawal negotiations. Despite pressure from Mubarak, the U.S. held the line, urging him to consolidate his position "before a ceasefire becomes inevitable."

RED, reassured by BLUE that it would not provide support to Mubarak, offered to consider a withdrawal of the Soviet presence following a resolution of the crisis "that does not reward Egyptian aggression," and to cooperate in the fight against terrorism. BLUE accepted the RED offer, and as a gesture of good faith, moved its naval forces away from the Libyan coast. BLUE informed Egypt that it believed Egypt's "basic political needs can be met without the costs and risks that attend further advance by Egyptian forces."

Both sides took some precautionary measures in case of a failure to conclude negotiations. At this point the game was terminated, after it had become clear that the sides had reached a resolution. The following day, game participants met for a debriefing and discussion of their observations and conclusions concerning the game.